CFS-B31/B31L

SERVICE MANUAL

AEP Model
CFS-B31/B31L
UK Model
CFS-B31

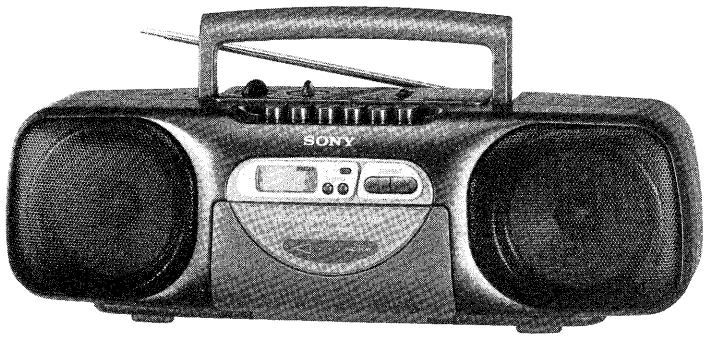

Photo : CFS-B31

Model Name Using Similar Mechanism	CFS-B11
Tape Transport Mechanism Type	MF-200

SPECIFICATIONS

Frequency range
CFS-B31:
European model
FM: 87.6–107 MHz
AM: 531–1,611 kHz
Italian model
FM: 87.5–108 MHz
AM: 531–1,611 kHz
CFS-B31L:
European model:
FM: 87.6–107 MHz
LW: 153–279 kHz
CFS-B31L:
East European model:
FM: 65–74 MHz
87,5–108 MHz
LW: 153–279 kHz
IF FM: 10.7 MHz
AM/LW: 450 kHz
Aerials
FM: Telescopic aerial
European, UK, Italian model:
AM/LW: Built-in ferrite bar aerial
East European model:
LW: Built-in ferrite bar aerial
Recording system
4-track, 2 channel stereo
Frequency response
50–12,500 Hz

Speakers
Full range: 10 cm (4 inches) dia. x 2, cone type
Maximum power output
2.5 W + 2.5 W
Output
Headphones jack, 16–68 ohms inpedance
Power requirements
For radio cassette-corder:
European, East European model:
220–230 V AC, 50 Hz
United Kingdom model
230–240 V AC, 50 Hz
9 V DC, six R20 (size D) batteries
For radio memory:
3 V DC, two R6 (size AA) batteries
Power consumption
10 W AC operation
Battery life
For radio cassette-corder:

Batteries	FM recording	Playback
Sony SUM-1 (NS)	approx. 18 hours	approx. 8 hours
Sony AM1 alkaline	approx. 30 hours	approx. 20 hours

For radio memory: approx. one year
Dimensions
Approx. 440 x 136.5 x 150.5 mm (w/h/d)
(17 3/8 x 5 3/8 x 6 1/8 inches) including projecting parts
Mass
Approx. 2.8 kg (6 lb 3 oz) including batteries
Accessory supplied
Mains lead (1)
Optional accessories
Sony "MDR" headphones series

Design and specifications are subject to change without notice.

RADIO CASSETTE-CORDER

SONY®

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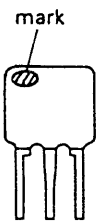
HOW TO CHANGED THE CERAMIC FILTERS

This model is used two ceramic filters of CF1 and CF2.
You must used same type of color marked ceramic filters in order to meet same specifications.
Therefore, the ceramic filter must changed two pieces together since it's supply two pieces in one package as a spare parts.



mark	center frequency
red	10.70MHz
blue	10.67MHz
orange	10.73MHz
black	10.64MHz
white	10.76MHz

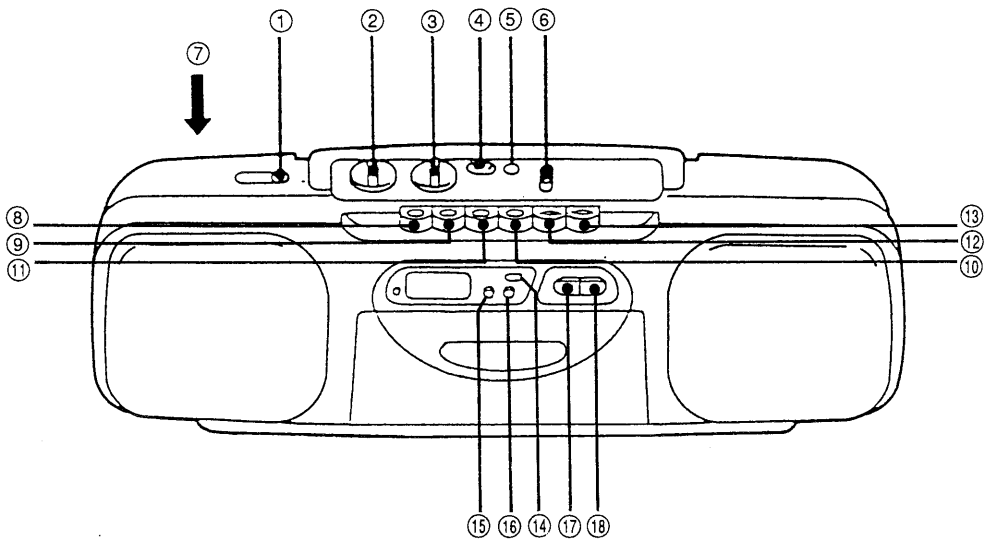
SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1
GENERAL

FUNCTION NAME

LOCATION CONTROL

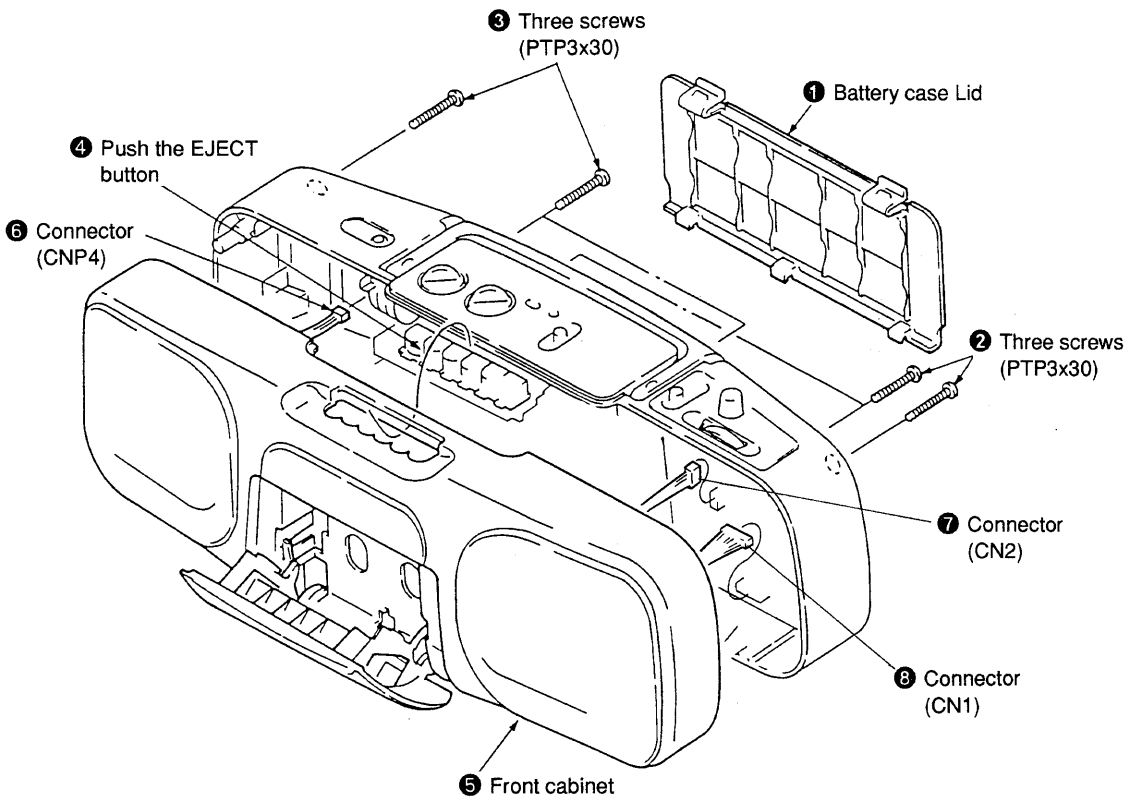


① PHONES jack
② VOLUME knob
③ TONE knob
④ MIC
⑤ OPR/BATT indicator lights.
⑥ FUNCTION switch
⑦ FM MODE/ISS button
(rear side)
⑧ ⏸ PAUSE button
⑨ ■/⏏ STOP/EJECT button
⑩ ◄◄ REW button
⑪ ►► FF button
⑫ ◄ PLAY button
⑬ ● REC button
⑭ ENTER button
⑮ TUNING – button
⑯ TUNING + button
⑰ PRESET – button
⑱ PRESET + button

SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

2-1. FRONT CABINET



SECTION 3
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

1. Torque Measurement

Mode	Torque Meter	Meter Reading
Playback	CQ-102C	30 — 70 g • cm (0.42 — 0.97 oz • inch)
Back tension	CQ-102C	1.5 — 5.5 g • cm (0.021 — 0.076 oz • inch)
Rewind	CQ-201B	60 — 130 g • cm (0.84 — 1.80 oz • inch)
Fast Forward		

2. Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 100g (3.53 oz)

SECTION 4
ELECTRICAL ADJUSTMENTS

TAPE SECTION

1. The adjustments should be performed in the order given in the service manual. (As a general rule. playback circuit adjustment should be completed before performing recording circuit adjustment.)
2. The adjustments should be performed for both L-CH and R-CH unless otherwise indicated.

• Switch location
FUNCTION ..... TAPE
VOLUME ..... MAX
TONE ..... HIGH

Standard Output Level

	SP OUT	HEAD PHONE
Load impedance	2.8Ω	32Ω
Output level	0.775V (0 dB)	0.25V (–10 dB)

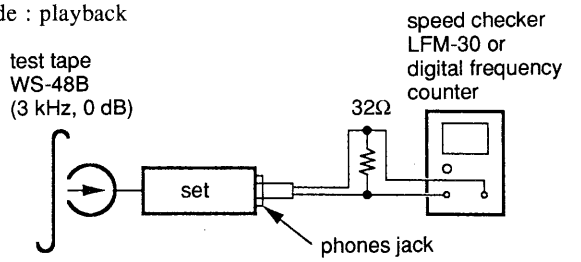
Test Tape

Type	Signal	Used for
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-A063	6.3 kHz, –10 dB	Head azimuth adjustment

0 dB = 0.775 V

Tape speed adjustment

Procedure :
Mode : playback

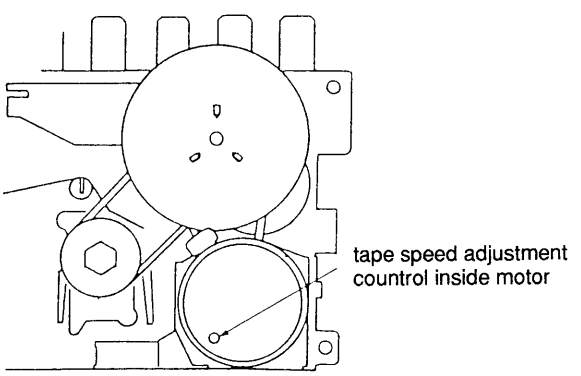


Adjustment Values :

Speed checker	Digital frequency counter
± 1%	2,970Hz — 3,030Hz

Frequency difference between the beginning and the end of the tape should be within 1.5% (45Hz).

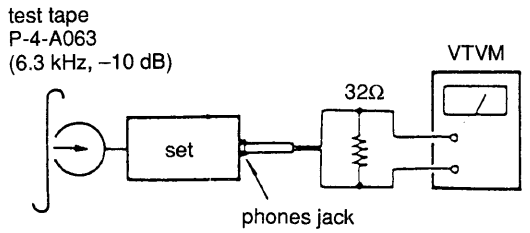
Adjustment Location :



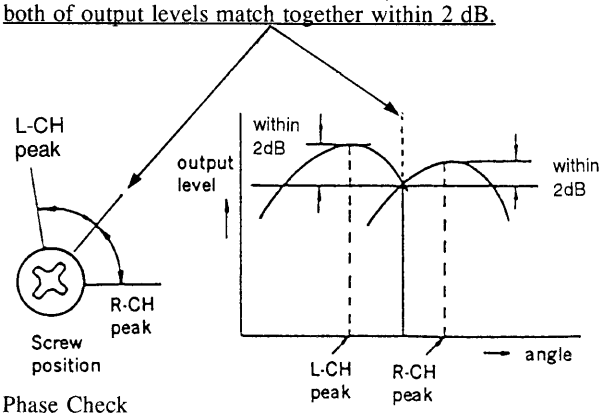
Record/Playback Head Azimuth Adjustment

Procedure :

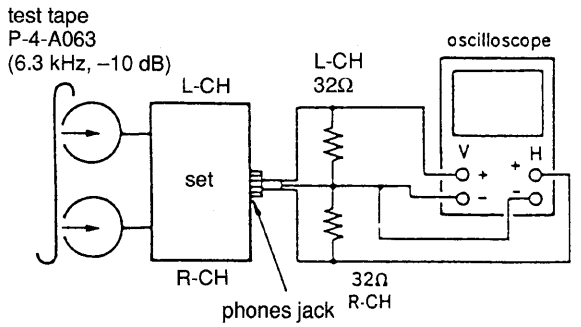
1. Mode : Playback

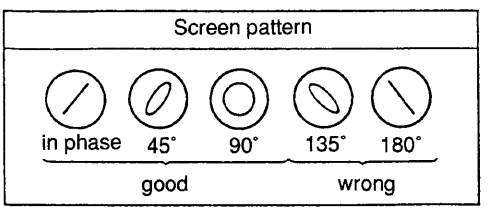


2. Turn the adjustment screw for the maximum output level. If these levels do not match, turn the adjustment screw until both of output levels match together within 2 dB.

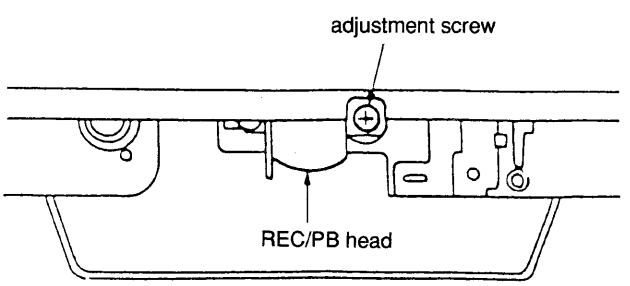


3. Phase Check
   Mode : playback





Adjustment Location :



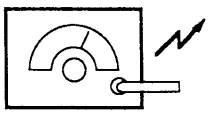
TUNER SECTION

- Switch location
  VOLUME ..... MAX
  TONE ..... mechanical center

AM (LW) SECTION

BAND : AM (LW)

AM RF signal generator



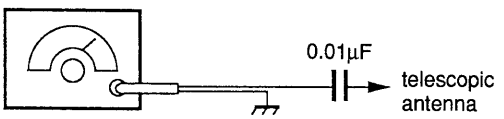
Put the lead-wire antenna close to the set.

30% amplitued modulation by 400 Hz signal.
Output level : as low as possible

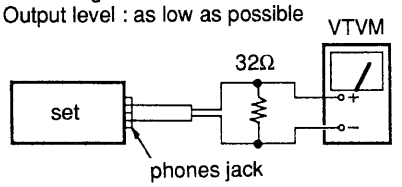
FM SECTION

BAND : FM

FM RF signal generator



22.5 kHz frequency deviation by 400 Hz signal.
Output level : as low as possible



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T2	450 kHz

AM (LW) FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	531 (153) kHz
Confirm	1,611 (279) kHz

AM (LW) TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
ANT2	621 (162) kHz
CT1	1,404 (261) kHz

FM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T3	10.7 MHz

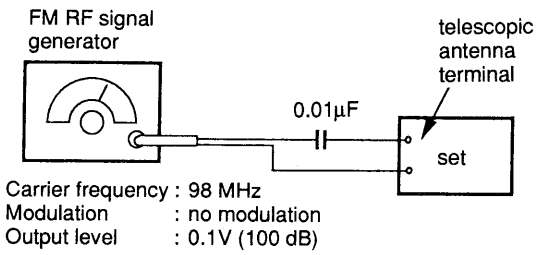
FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	87.5 MHz
Confirm	108 MHz

FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	87.5 MHz
CT2	108 MHz

( ) : CFS-31L LW

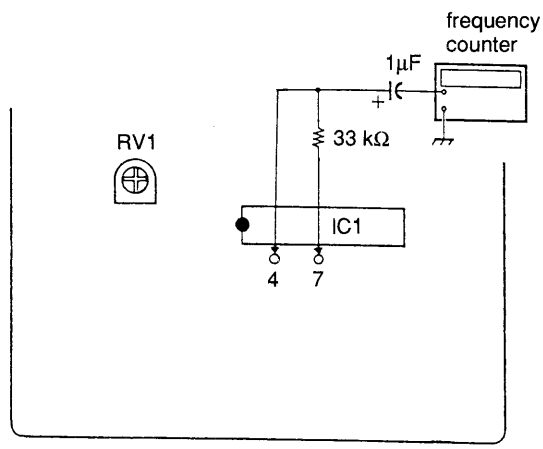
VCO Adjustment

Procedure :



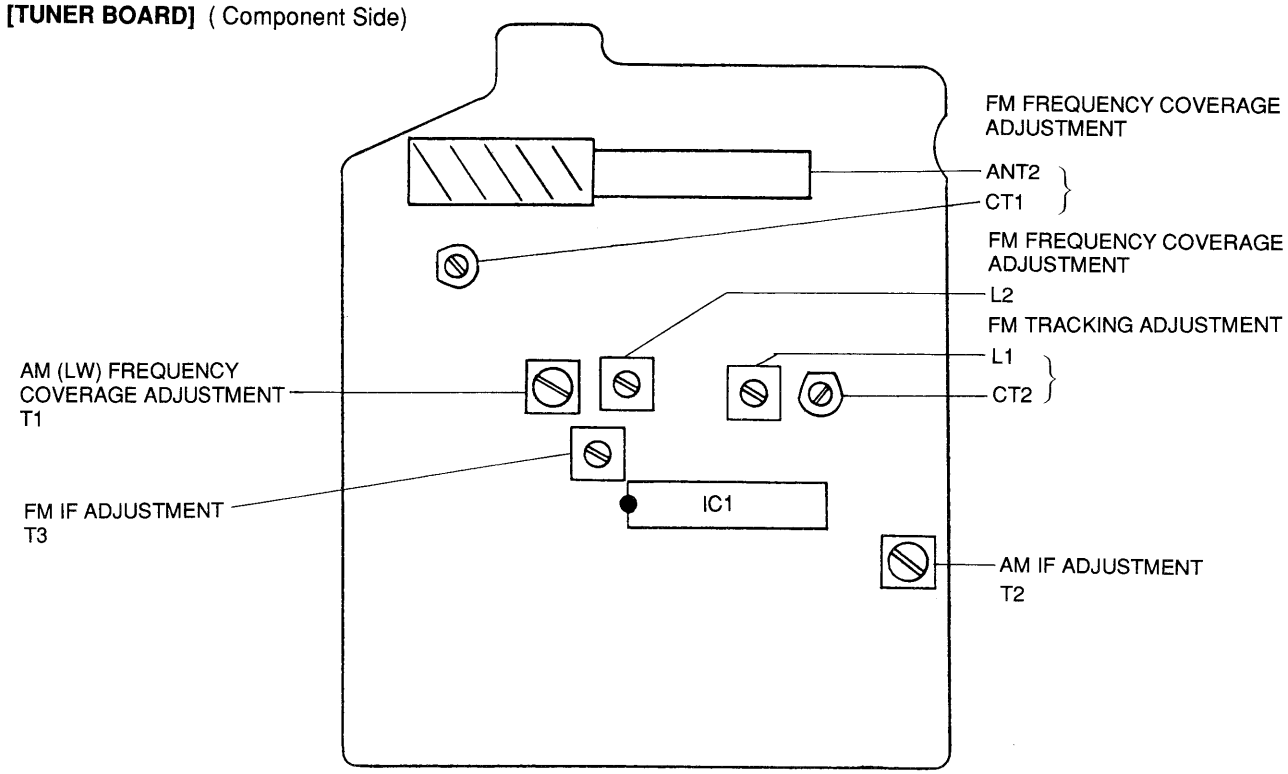
1. Connect the frequency counter to ④ and ⑦ pins of IC1 as shown the figure below.
2. Turn the set to 98 MHz.
3. Adjust RV1 for 76 kHz ± 500 Hz reading on frequency counter.

[TUNER BOARD] (Component Side)



Adjustment Location :

[TUNER BOARD] (Component Side)



SECTION 5
DIAGRAMS

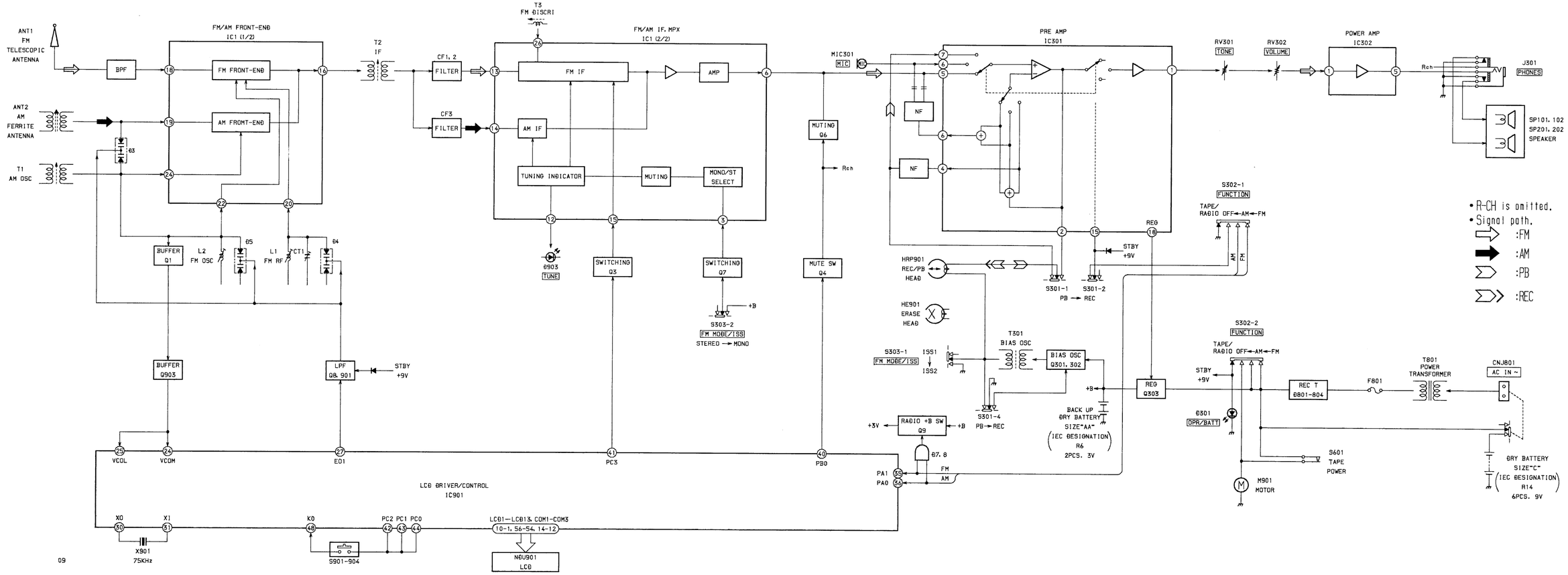
5-1. IC PIN FUNCTIONS

- **IC901 μPD1724G LCD DRIVE/CONTROL**

Pin No.	Pin Name	I/O	Function
1 – 10, 54 – 56	LCD1 – LCD13	O	LCD Segment signal output
11	——	–	Not used
12 – 14	COM1 – COM3	O	LCD Common signal output
15	VSS1	–	Connect to capacitor (for LCD voltage drive)
16	CAP2	–	
17	CAP1	–	
18	VSS2	–	
19	BUZZER	–	Not used
20	CGP	–	
21	NC	–	
22	VDD	–	+3.6V
23	VCOH	–	Not used
24	VCOM	I	VCO OSC input
25	VCOL	I	
26	GND	–	GND
27	E01	O	Charge pump output
28	E02	–	Not used
29	CE	I	Device select
30	XO	O	X'tal clock (75 kHz)
31	XI	I	
32	VREG	–	Connect to capacitor (for X'tal voltage drive)
33	PA3	I	PORT / AEP, UK, IT / EE: PA2 H H; PA3 H L
34	PA2	I	
35	PA1	I	MODE / TAPE / FM / AM/LW: PA0 L H L; PA1 L L H
36	PA0	I	
37 – 39	PB1 – PB3	–	Not used
40	PB0	O	Mute signal output
41	PC3	O	FM/AM (LW) band switch "H"=AM (LW) "L"=FM
42 – 44	PC0 – PC2	O	Key source output
45, 46	K2, K3	–	Not used
47, 48	K0, K1	I	Key source input
49, 50	NC	–	Not used
51 – 53	LCD14 – LCD16	–	

- Abbreviation
  IT : Italian model
  EE : East European model

5-2. BLOCK DIAGRAM



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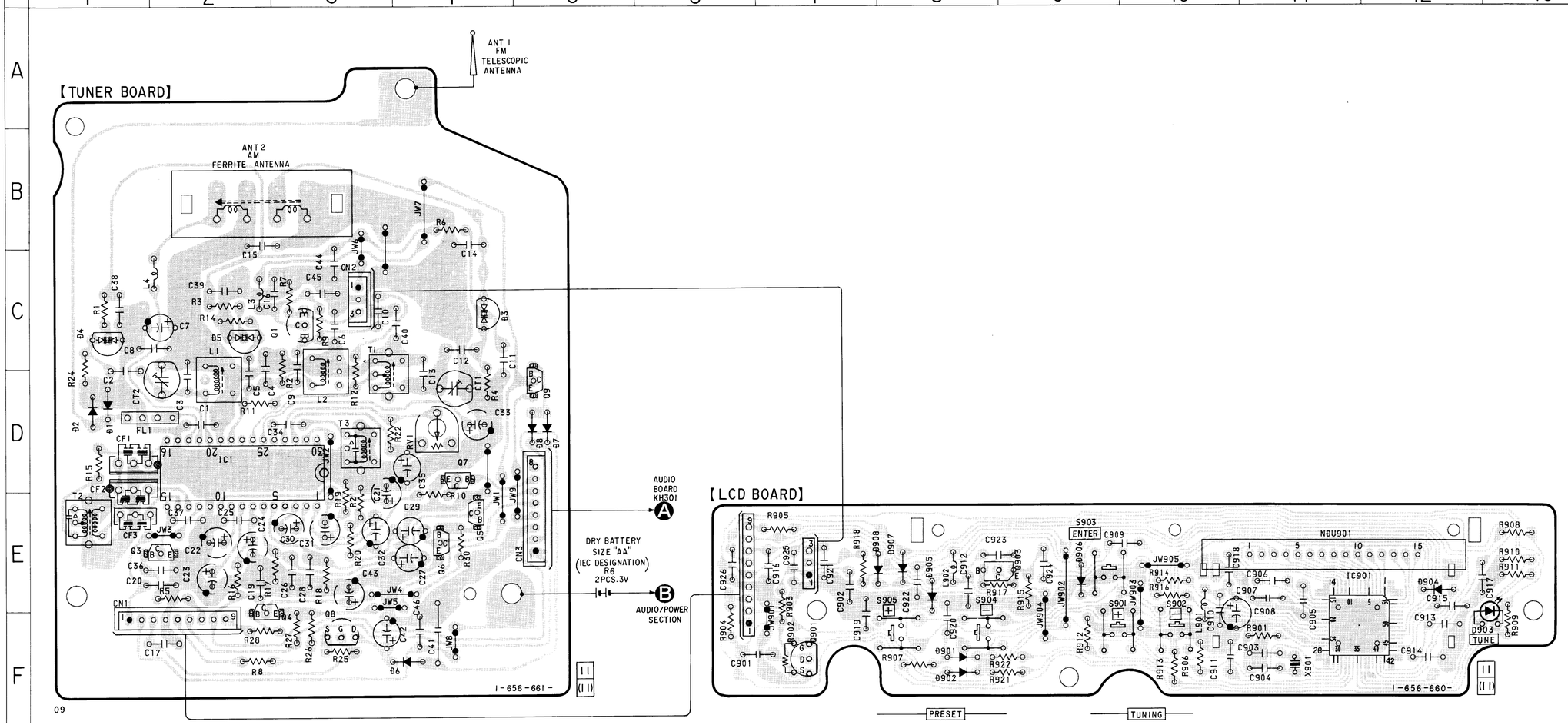
5-3. PRINTED WIRING BOARD — TUNER/LCD SECTION —

• **Semiconductor Location**

Ref. No.	Location
D1	D-1
D2	D-1
D3	C-4
D4	C-1
D5	C-2
D6	F-3
D7	D-5
D8	D-5
D901	F-8
D902	F-8
D903	F-13
D904	E-12
D905	E-8
D906	E-9
D907	E-8
D908	E-7
IC1	D-2
IC901	E-11
Q1	C-3
Q3	E-1
Q4	F-3
Q5	E-4
Q6	E-4
Q7	D-4
Q8	F-3
Q9	D-5
Q901	F-7
Q903	E-9

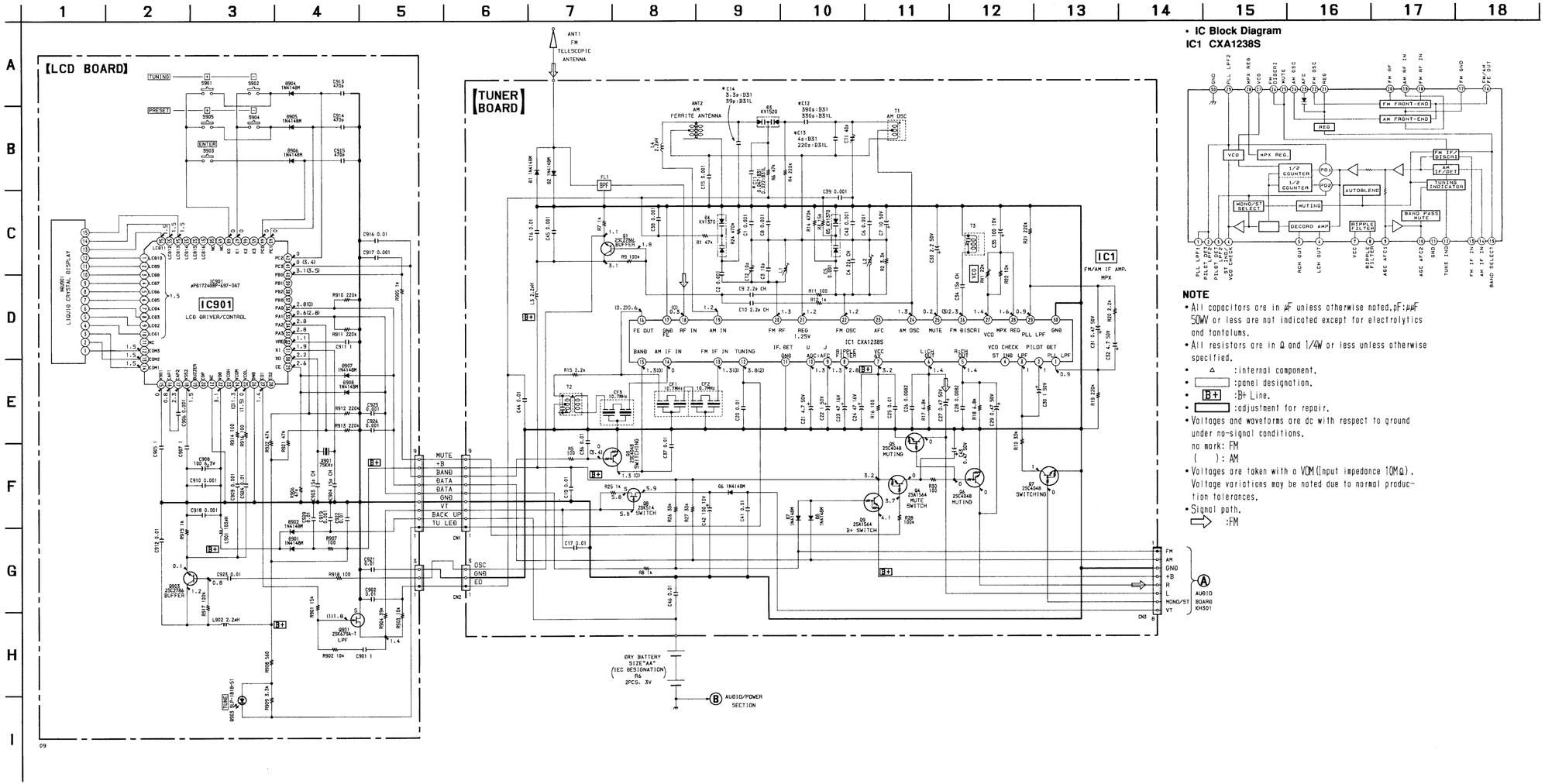


Note:

- ⟜—— : parts extracted from the component side.
- △ : internal component.
- ▒▒ : Pattern from the side which enable seeing.

5-4. SCHEMATIC DIAGRAM — TUNER/LCD SECTION —

• See page 8 for IC Pin Function. (IC901)



• IC Block Diagram

IC1 CXA1238S

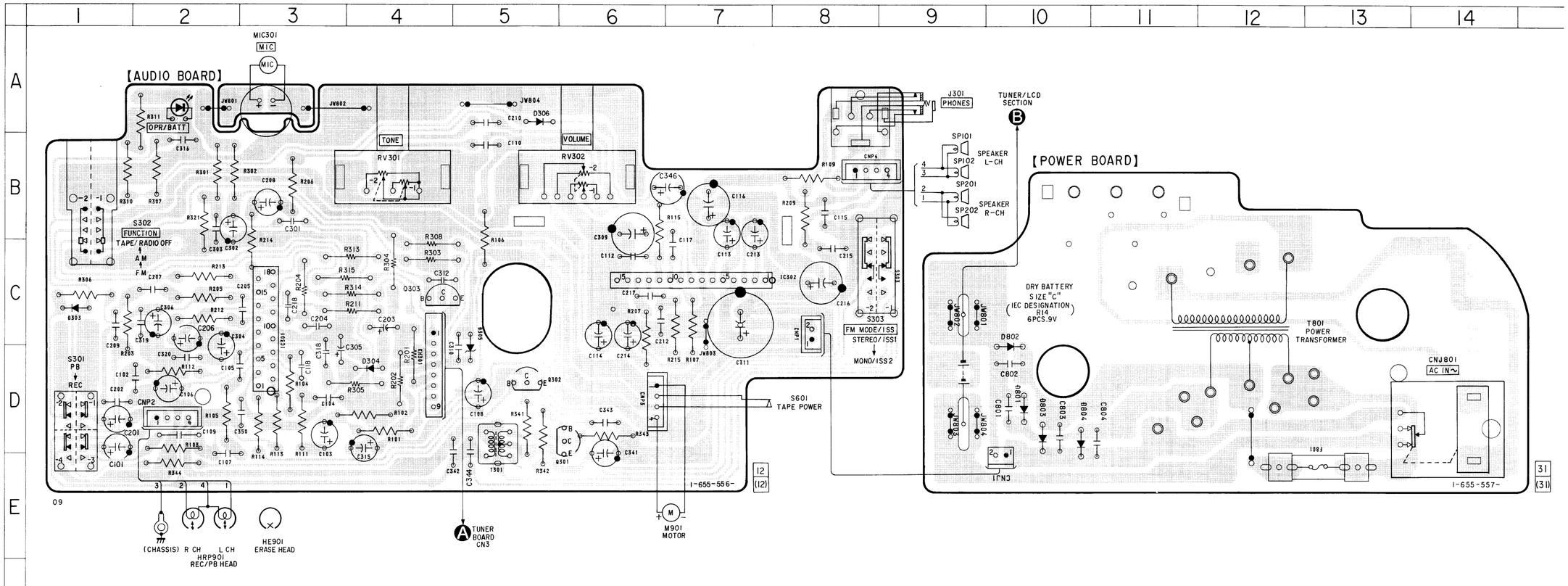
NOTE

- All capacitors are in μF unless noted. pF: μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- B+ : B+ Line.
- ▬ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: FM
  ( ): AM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM

5-5. PRINTED WIRING BOARD — AUDIO/POWER SECTION —

- **Semiconductor Location**

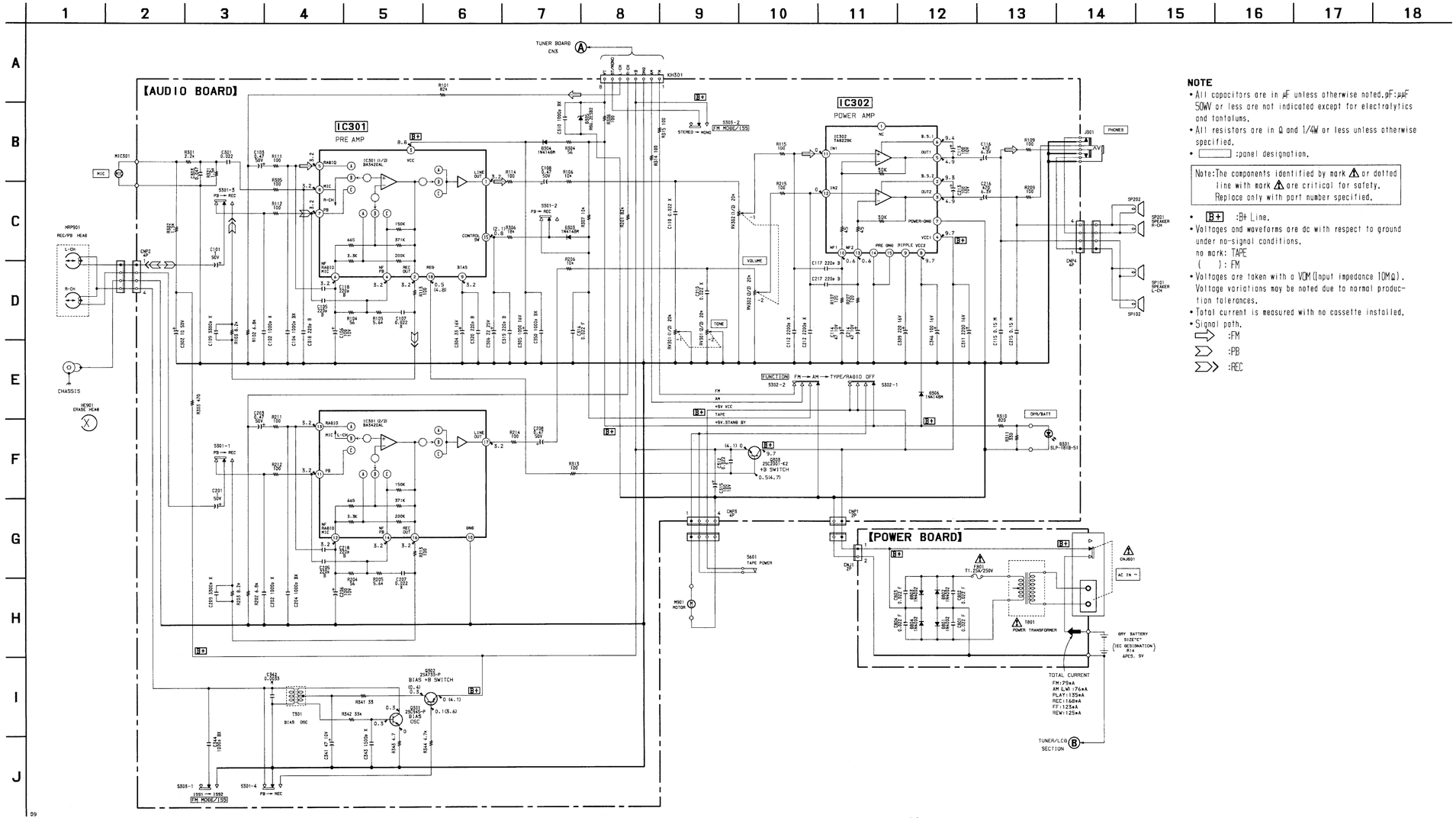
Ref. No.	Location
D301	A-2
D303	C-1
D304	D-4
D305	D-5
D306	A-5
D801	D-10
D802	D-10
D803	D-10
D804	D-10
IC301	C-3
IC302	C-7
Q301	D-6
Q302	D-5
Q303	C-4



Note:

- ⟜ : parts extracted from the component side.
- ▒ : Pattern from the side which enable seeing.

5-6. SCHEMATIC DIAGRAM — AUDIO/POWER SECTION —



NOTE

- All capacitors are in μF unless otherwise noted. pF: μF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- [ ] :panel designation.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

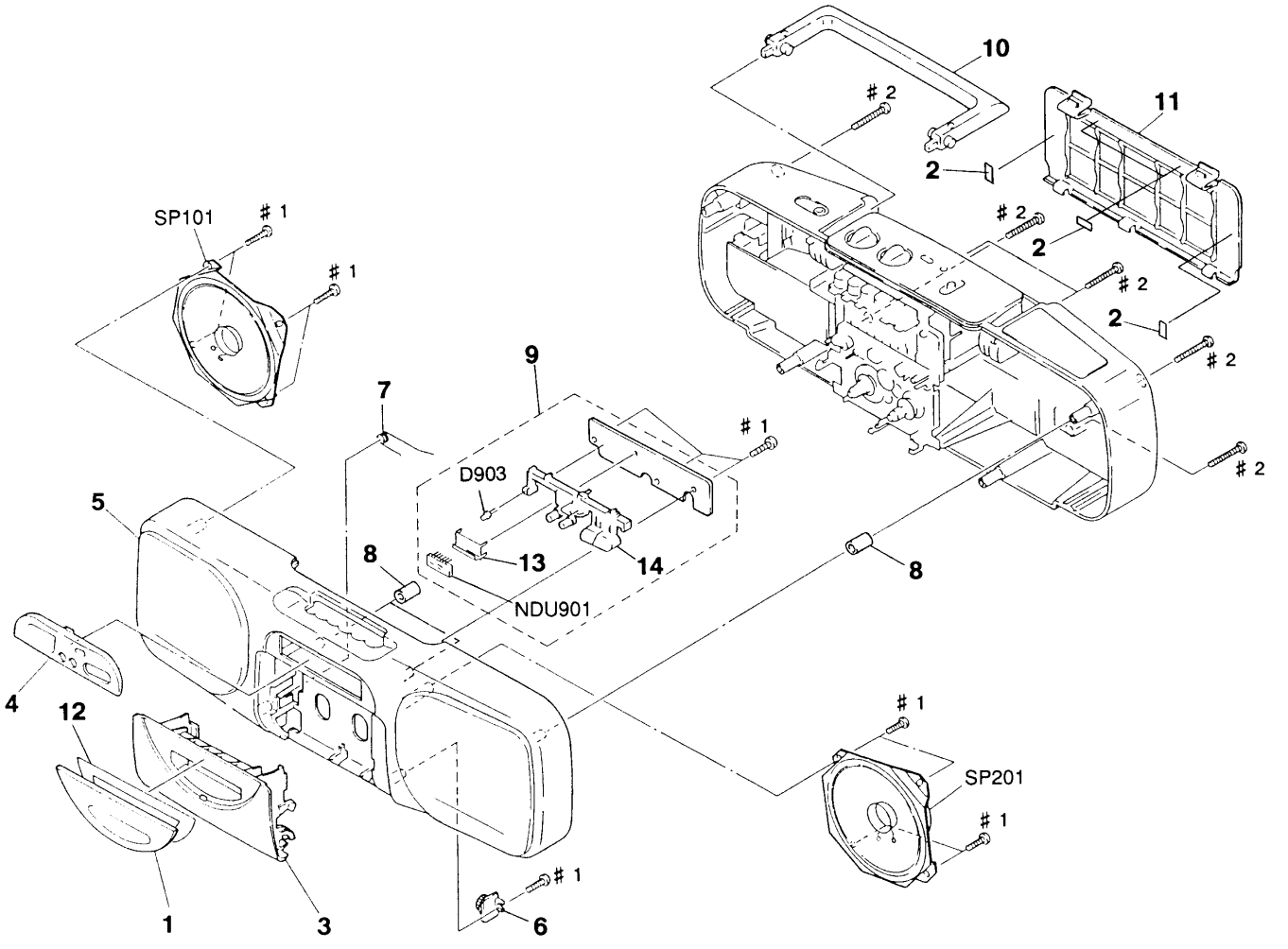
- B+ :B+ Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  no mark: TAPE
  ( ): FM
- Voltages are taken with a VOM (Input impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Total current is measured with no cassette installed.
- Signal path.
  ⇨ :FM
  ⇒ :PB
  ⇛ :REC

SECTION 6
EXPLODED VIEWS

NOTE:
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts color Cabinet's color
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
  IT : Italian model
  EE : East European model

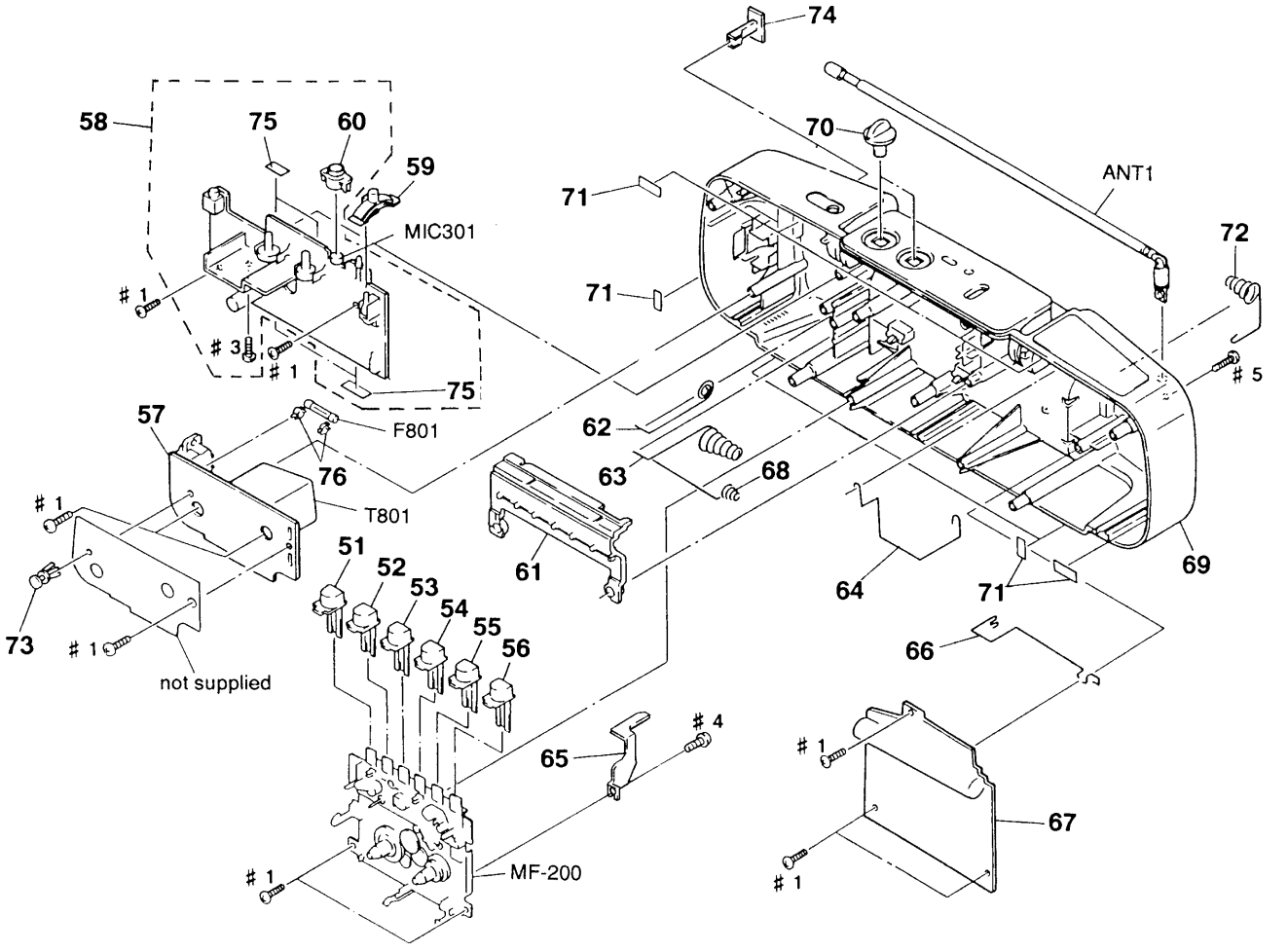
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. FRONT CABINET SECTION



Ref. No.	Part No.	Description	Remark
1	3-920-773-01	WINDOW, CASSETTE	
2	3-831-441-XX	SPACER	
3	3-913-267-11	HOLDER, CASSETTE (BLACK)	
3	3-913-267-21	HOLDER, CASSETTE (WHITE)	
4	3-922-546-01	WINDOW, DIAL	
5	X-3370-267-1	CABINET (FRONT) SUB ASSY (BLACK)	
5	X-3370-268-1	CABINET (FRONT) SUB ASSY (2B) (WHITE)	
6	3-356-157-01	DAMPER	
7	3-384-771-01	SPRING (CASSETTE)	
8	3-922-547-01	SPACER	
* 9	A-3305-066-A	LCD BOARD, COMPLETE (B31)	
* 9	A-3305-228-A	LCD BOARD, COMPLETE (B31L:AEP)	
* 9	A-3305-229-A	LCD BOARD, COMPLETE (B31L:EE)	
10	X-3365-904-1	HANDLE (FRONT) ASSY (BLACK)	
10	X-3366-323-1	HANDLE (FRONT) ASSY (WHITE)	
11	3-384-748-01	LID, BATTERY CASE (BLACK)	
11	3-384-748-11	LID, BATTERY CASE (WHITE)	
12	3-918-725-01	SHEET (CST WIND), ADHESIVE	
* 13	3-922-549-01	RETAINER, LCD	
14	3-922-548-01	BUTTON (CONTROL)	
D903	8-719-038-29	DIODE SLP-181B-51 (TUNE)	
NDU901	1-810-851-11	DISPLAY PANEL, LIQUID CRYSTAL	
SP101	1-504-269-21	SPEAKER (10CM) (B31)	
SP101	1-504-727-11	SPEAKER (10CM) (B31L)	
SP201	1-504-269-21	SPEAKER (10CM) (B31)	
SP201	1-504-727-11	SPEAKER (10CM) (B31L)	

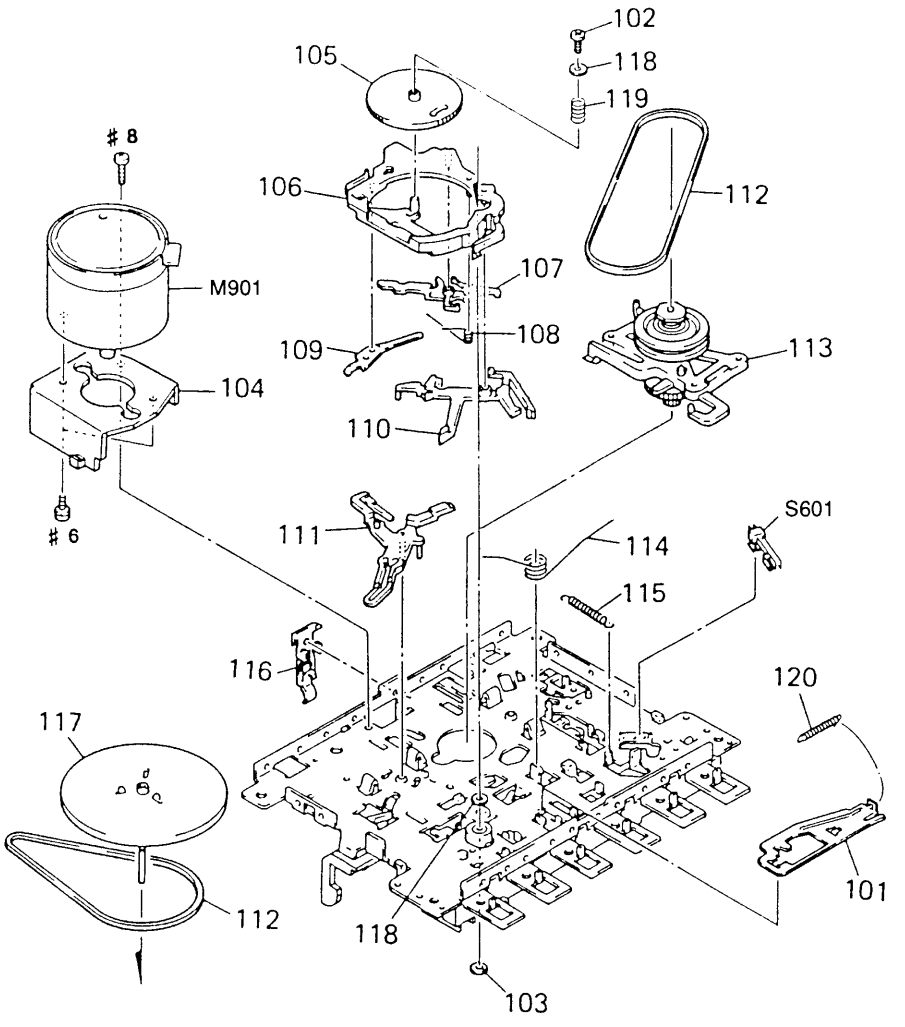
6-2. REAR CABINET SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

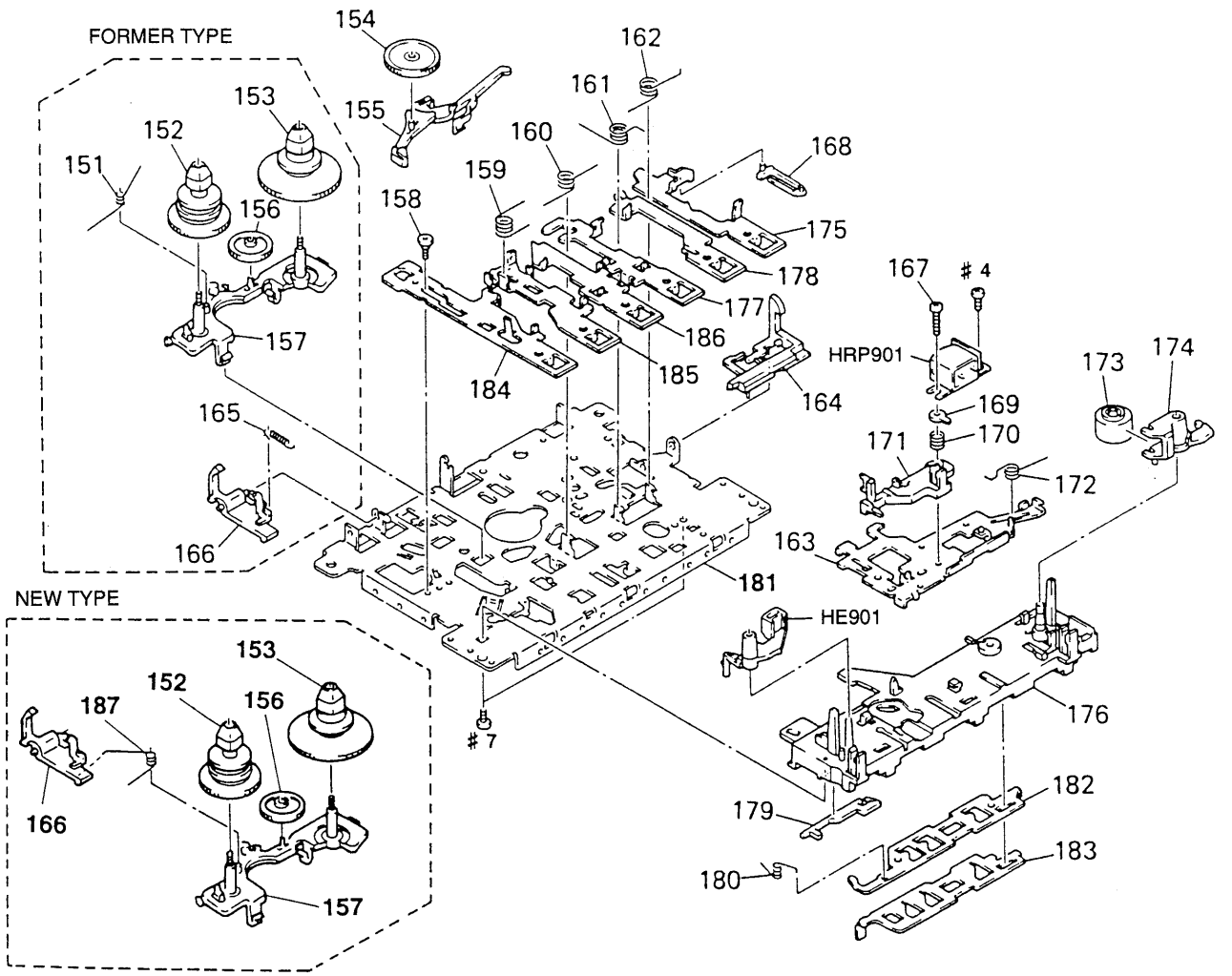
Ref. No.	Part No.	Description	Remark
51	3-913-261-11	BUTTON (PAUSE) (BLACK)	
51	3-913-261-21	BUTTON (PAUSE) (WHITE)	
52	3-913-258-11	BUTTON (STOP) (BLACK)	
52	3-913-258-21	BUTTON (STOP) (WHITE)	
53	3-913-260-11	BUTTON (FF) (BLACK)	
53	3-913-260-21	BUTTON (FF) (WHITE)	
54	3-913-259-11	BUTTON (REW) (BLACK)	
54	3-913-259-21	BUTTON (REW) (WHITE)	
55	3-913-257-11	BUTTON (FWD) (BLACK)	
55	3-913-257-21	BUTTON (FWD) (WHITE)	
56	3-913-262-11	BUTTON (REC) (BLACK)	
56	3-913-262-21	BUTTON (REC) (WHITE)	
* 57	1-655-557-11	POWER BOARD	
* 58	A-3305-067-A	AUDIO BOARD, COMPLETE	
59	3-379-431-01	KNOB (LEVER) (BLACK)	
59	3-379-431-11	KNOB (LEVER) (WHITE)	
* 60	3-911-281-01	CUSHION, MIC	
* 61	3-384-758-01	BUTTON, BRACKET (MD)	
62	3-384-768-01	TERMINAL (+), BATTERY	
63	3-384-769-01	TERMINAL (-), BATTERY	
* 64	3-384-767-01	TERMINAL, ANTENNA	
* 65	3-924-120-01	LEVER (REC)	
66	3-922-551-01	TERMINAL (+), BATTERY	
* 67	A-3305-065-A	TUNER BOARD, COMPLETE (B31)	
* 67	A-3305-069-A	TUNER BOARD, COMPLETE (B31L:AEP)	
* 67	A-3305-230-A	TUNER BOARD, COMPLETE (B31L:EE)	
68	3-922-550-01	SPRING (-), BATTERY COIL	
69	3-923-981-01	CABINET (REAR) (BLACK) (B31)	
69	3-923-981-11	CABINET (REAR) (WHITE) (B31)	
69	3-923-981-21	CABINET (REAR) (BLACK) (B31L)	
69	3-923-981-31	CABINET (REAR) (WHITE) (B31L)	
70	3-379-419-01	KNOB (ROTARY) (BLACK)	
70	3-379-419-11	KNOB (ROTARY) (WHITE)	
71	3-831-441-XX	SPACER	
72	3-384-770-01	SPRING (+ -), BATTERY COIL	
73	4-812-134-00	RIVET NYLON, 3.5	
74	3-385-889-01	KNOB (ISS) (BLACK)	
74	3-385-889-11	KNOB (ISS) (WHITE)	
* 75	3-377-293-01	CUSHION, SARANET	
76	1-533-217-31	HOLDER, FUSE	
ANT1	1-501-378-11	ANTENNA, TELESCOPIC	
⚠F801	1-532-285-00	FUSE T1.25A/250V	
MIC301	1-542-118-11	MICROPHONE, ELECTRET CONDENSER (MIC)	
⚠T801	1-450-492-11	TRANSFORMER, POWER	

6-3. MECHANISM DECK SECTION 1 (MF-200)



Ref. No.	Part No.	Description	Remark
101	3-379-844-01	PLATE, STOP, FR	
102	3-366-352-01	SCREW	
103	3-362-980-01	WASHER	
* 104	3-362-988-01	HOLDER, MOTOR	
105	X-3363-315-1	GEAR, CAM	
106	3-362-973-01	AS (BASE)	
107	3-362-976-01	LEVER, CONTROL	
108	3-362-977-01	SPRING	
109	3-362-978-01	SPRING, PLATE	
110	3-362-975-01	LEVER, SENSOR	
111	3-387-697-01	SENSOR	
112	3-362-989-01	BELT	
113	3-362-969-01	IDLER ASSY, PF	
114	3-362-970-01	SPRING	
115	3-362-971-01	SPRING	
116	3-362-967-01	SPRING, CASSETTE	
117	3-387-698-01	FW ASSY	
118	3-369-961-01	WASHER	
119	3-369-962-01	SPRING, COMPRESSION	
120	3-379-843-01	SPRING	
M901	X-3366-491-1	MOTOR ASSY	
S601	1-572-304-11	SWITCH, LEAF	

6-4. MECHANISM DECK SECTION 2 (MF-200)



Ref. No.	Part No.	Description	Remark
151	3-372-120-01	SPRING	
152	X-3363-611-1	REEL, S	
153	3-362-962-01	REEL ASSY, T	
154	3-362-960-01	PULLEY, IDLER	
155	3-362-959-01	ARM, IDLER	
156	3-362-965-01	IDLER, FF	
157	3-362-961-01	SPINDLE (BASE)	
158	3-362-958-01	SCREW	
159	3-362-954-01	SPRING	
160	3-362-955-01	SPRING	
161	3-362-956-01	SPRING	
162	3-362-957-01	SPRING	
* 163	3-362-984-01	HEAD (BASE)	
164	3-362-968-01	LEVER, EJECT	
165	3-363-228-01	SPRING	
166	3-362-966-01	INTER LOCK	
167	3-363-229-01	SCREW	
168	3-362-953-01	ARM, PAUSE	
169	3-363-230-01	LUG	
170	3-362-985-01	SPRING	
171	3-362-986-01	HOLDER, HEAD	
172	3-362-983-01	SPRING	
173	3-362-982-01	PINCH ROLLER	
174	3-362-981-01	PINCH ARM	
* 175	3-362-952-01	LEVER, PAUSE	
176	3-362-942-01	FRAME ASSY	
* 177	3-362-950-01	LEVER, FF	
* 178	3-362-951-01	LEVER, SE	
179	3-362-944-01	STOPPER, REC	
180	3-362-945-01	SPRING	
* 181	3-362-941-01	CHASSIS	
* 182	3-362-943-01	PLATE, FUNCTION	
* 183	3-362-946-01	LEVER, SW	
* 184	3-362-947-01	LEVER, REC	
* 185	3-362-948-01	LEVER, PLAY	
* 186	3-362-949-01	LEVER, REW	
187	3-917-805-01	SPRING	
HE901	1-500-031-11	HEAD, MAGNETIC (ERASE)	
HRP901	1-500-005-11	HEAD, MAGNETIC (RECORD/PLAYBACK)	

AUDIO

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
  All resistors are in ohms
  METAL: Metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F : nonflammable
- SEMICONDUCTORS
  In each case, u: μ , for example:
  uA...: μA..., uPA...: μPA..., uPB...: μPB..., uPC...: μPC..., uPD...: μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH
- Abbreviation
  IT : Italian model
  EE : East European model

Ref. No.	Part No.	Description			Remark
*	A-3305-067-A	AUDIO BOARD, COMPLETE **********			
*	3-377-293-01	CUSHION, SARANET			
*	3-911-281-01	CUSHION, MIC			
	7-685-871-01	SCREW +BVTT 3X6 (S)			
		< CAPACITOR >			
C101	1-124-903-11	ELECT	1uF	20%	50V
C102	1-162-827-11	CERAMIC	0.001uF	10%	16V
C103	1-124-902-00	ELECT	0.47uF	20%	50V
C104	1-162-294-31	CERAMIC	0.001uF	10%	50V
C105	1-162-286-31	CERAMIC	220PF	10%	50V
C106	1-124-443-00	ELECT	100uF	20%	10V
C107	1-162-843-11	CERAMIC	0.022uF	10%	16V
C108	1-124-902-00	ELECT	0.47uF	20%	50V
C109	1-161-045-00	CERAMIC	0.0033uF	10%	50V
C110	1-162-843-11	CERAMIC	0.022uF	10%	16V
C112	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C113	1-124-443-00	ELECT	100uF	20%	10V
C114	1-104-664-11	ELECT	47uF	20%	10V
C115	1-130-497-00	MYLAR	0.15uF	5%	50V
C116	1-126-941-11	ELECT	470uF	20%	6.3V
C117	1-162-286-31	CERAMIC	220PF	10%	50V
C118	1-162-286-31	CERAMIC	220PF	10%	50V
C201	1-124-903-11	ELECT	1uF	20%	50V
C202	1-162-827-11	CERAMIC	0.001uF	10%	16V
C203	1-124-902-00	ELECT	0.47uF	20%	50V
C204	1-162-294-31	CERAMIC	0.001uF	10%	50V
C205	1-162-286-31	CERAMIC	220PF	10%	50V
C206	1-124-443-00	ELECT	100uF	20%	10V
C207	1-162-843-11	CERAMIC	0.022uF	10%	16V
C208	1-124-902-00	ELECT	0.47uF	20%	50V
C209	1-161-045-00	CERAMIC	0.0033uF	10%	50V
C210	1-162-843-11	CERAMIC	0.022uF	10%	16V
C212	1-162-302-11	CERAMIC	0.0022uF	30%	16V
C213	1-124-443-00	ELECT	100uF	20%	10V
C214	1-104-664-11	ELECT	47uF	20%	10V
C215	1-130-497-00	MYLAR	0.15uF	5%	50V
C216	1-126-941-11	ELECT	470uF	20%	6.3V
C217	1-162-286-31	CERAMIC	220PF	10%	50V
C218	1-162-286-31	CERAMIC	220PF	10%	50V
C301	1-162-843-11	CERAMIC	0.022uF	10%	16V
C302	1-124-907-11	ELECT	10uF	20%	50V
C303	1-162-847-11	CERAMIC	0.047uF	10%	16V
C304	1-104-663-11	ELECT	33uF	20%	16V
C305	1-126-942-61	ELECT	1000uF	20%	16V
C306	1-126-233-11	ELECT	22uF	20%	50V
C309	1-124-120-11	ELECT	220uF	20%	25V
C310	1-162-294-31	CERAMIC	0.001uF	10%	50V
C311	1-124-556-11	ELECT	2200uF	20%	16V
C312	1-164-097-11	CERAMIC	0.022uF		50V
C315	1-124-443-00	ELECT	100uF	20%	10V
C316	1-164-097-11	CERAMIC	0.022uF		50V
C318	1-162-286-31	CERAMIC	220PF	10%	50V
C319	1-162-286-31	CERAMIC	220PF	10%	50V
C320	1-162-286-31	CERAMIC	220PF	10%	50V
C341	1-104-664-11	ELECT	47uF	20%	10V
C342	1-130-477-00	MYLAR	0.0033uF	5%	50V
C343	1-162-301-11	CERAMIC	0.0015uF	30%	16V
C344	1-162-294-31	CERAMIC	0.001uF	10%	50V
C346	1-104-665-11	ELECT	100uF	20%	16V
C350	1-162-294-31	CERAMIC	0.001uF	10%	50V
		< CONNECTOR >			
* CNP1	1-580-154-11	PIN, CONNECTOR (PC BOARD) 2P			
CNP2	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CNP3	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CNP4	1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
		< DIODE >			
D301	8-719-038-29	DIODE SLP-181B-51 (OPR/BATT)			
D303	8-719-987-63	DIODE 1N4148M			
D304	8-719-987-63	DIODE 1N4148M			
D305	8-719-109-93	DIODE RD6.2ESB2			
D306	8-719-987-63	DIODE 1N4148M			
		< IC >			
IC301	8-759-978-54	IC BA3420AL			
IC302	8-759-246-03	IC TA8229K			
		< JACK >			
J301	1-566-891-11	JACK (PHONES)			
		< MICROPHONE >			
MIC301	1-542-118-11	MICROPHONE, ELECTRET CONDENSER (MIC)			

Ref.No.	Part No.	Description				Remark
		< TRANSISTOR >				
Q301	8-729-194-57	TRANSISTOR	2SC945-P			
Q302	8-729-119-76	TRANSISTOR	2SA1175-HFE			
Q303	8-729-142-46	TRANSISTOR	2SC2001-LK			
		< RESISTOR >				
R101	1-249-468-11	CARBON	82K	5%	1/4W	
R102	1-247-723-11	CARBON	6.8K	5%	1/4W	F
R103	1-247-724-11	CARBON	8.2K	5%	1/4W	F
R104	1-247-697-11	CARBON	56	5%	1/4W	F
R105	1-247-722-11	CARBON	5.6K	5%	1/4W	F
R106	1-247-725-11	CARBON	10K	5%	1/4W	F
R107	1-246-451-15	CARBON	120	5%	1/4W	
R109	1-247-700-11	CARBON	100	5%	1/4W	F
R111	1-247-700-11	CARBON	100	5%	1/4W	F
R112	1-247-700-11	CARBON	100	5%	1/4W	F
R113	1-247-700-11	CARBON	100	5%	1/4W	F
R114	1-247-700-11	CARBON	100	5%	1/4W	F
R115	1-247-700-11	CARBON	100	5%	1/4W	F
R201	1-249-468-11	CARBON	82K	5%	1/4W	
R202	1-247-723-11	CARBON	6.8K	5%	1/4W	F
R203	1-247-724-11	CARBON	8.2K	5%	1/4W	F
R204	1-247-697-11	CARBON	56	5%	1/4W	F
R205	1-247-722-11	CARBON	5.6K	5%	1/4W	F
R206	1-247-725-11	CARBON	10K	5%	1/4W	F
R207	1-246-451-15	CARBON	120	5%	1/4W	
R209	1-247-700-11	CARBON	100	5%	1/4W	F
R211	1-247-700-11	CARBON	100	5%	1/4W	F
R212	1-247-700-11	CARBON	100	5%	1/4W	F
R213	1-247-700-11	CARBON	100	5%	1/4W	F
R214	1-247-700-11	CARBON	100	5%	1/4W	F
R215	1-247-700-11	CARBON	100	5%	1/4W	F
R301	1-247-717-11	CARBON	2.2K	5%	1/4W	F
R302	1-247-715-11	CARBON	1.5K	5%	1/4W	F
R303	1-247-708-11	CARBON	470	5%	1/4W	F
R304	1-247-697-11	CARBON	56	5%	1/4W	F
R305	1-247-700-11	CARBON	100	5%	1/4W	F
R306	1-249-461-11	CARBON	18K	5%	1/4W	
R307	1-247-725-11	CARBON	10K	5%	1/4W	F
R308	1-247-700-11	CARBON	100	5%	1/4W	F
R310	1-247-712-11	CARBON	820	5%	1/4W	F
R311	1-246-461-15	CARBON	330	5%	1/4W	
R313	1-247-700-11	CARBON	100	5%	1/4W	F
R314	1-247-700-11	CARBON	100	5%	1/4W	F
R315	1-247-700-11	CARBON	100	5%	1/4W	F
R321	1-247-715-11	CARBON	1.5K	5%	1/4W	F
R341	1-247-694-11	CARBON	33	5%	1/4W	F
R342	1-247-726-11	CARBON	33K	5%	1/4W	F
R343	1-249-455-11	CARBON	4.7	5%	1/4W	
R344	1-247-721-11	CARBON	4.7K	5%	1/4W	F

Ref.No.	Part No.	Description				Remark
		< VARIABLE RESISTOR >				
RV301	1-238-431-11	RES, VAR, CARBON 20K/20K (TONE)				
RV302	1-238-430-11	RES, VAR, CARBON 20K/20K (VOLUME)				
		< SWITCH >				
S301	1-762-369-11	SWITCH, SLIDE (PB/REC)				
S302	1-762-429-11	SWITCH, LEVER SLIDE (FUNCTION)				
S303	1-571-547-11	SWITCH, SLIDE (FM MODE/ISS)				
		< TRANSFORMER >				
T301	1-433-268-00	TRANSFORMER, BIAS OSCILLATOR				
**********						
*	A-3305-066-A	LCD BOARD, COMPLETE (B31)				
		**********				
*	A-3305-228-A	LCD BOARD, COMPLETE (B31L:AEP)				
		**********				
*	A-3305-229-A	LCD BOARD, COMPLETE (B31L:EE)				
		**********				
	3-922-548-01	BUTTON (CONTROL)				
*	3-922-549-01	RETAINER, LCD				
		< CAPACITOR >				
C901	1-136-177-00	FILM	1uF	5%	50V	
C902	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C903	1-162-203-31	CERAMIC	15PF	5%	50V	
C904	1-162-203-31	CERAMIC	15PF	5%	50V	
C905	1-136-165-00	FILM	1uF	5%	50V	
C906	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C907	1-136-165-00	FILM	1uF	5%	50V	
C908	1-126-968-11	ELECT	100uF	20%	50V	
C909	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C910	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C911	1-136-165-00	FILM	1uF	5%	50V	
C912	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C913	1-162-290-31	CERAMIC	470PF	20%	50V	
C914	1-162-290-31	CERAMIC	470PF	20%	50V	
C915	1-162-290-31	CERAMIC	470PF	20%	50V	
C916	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C917	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C918	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C919	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C920	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C921	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C922	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C923	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C924	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C925	1-162-294-31	CERAMIC	0.001uF	10%	50V	

LCD POWER TUNER

Ref. No.	Part No.	Description				Remark
C926	1-162-294-31	CERAMIC	0.001uF	10%	50V	
		< DIODE >				
D901	8-719-987-63	DIODE	1N4148M			
D902	8-719-987-63	DIODE	1N4148M			
D903	8-719-038-29	DIODE	SLP-181B-51 (TUNE)			
D904	8-719-987-63	DIODE	1N4148M			
D905	8-719-987-63	DIODE	1N4148M			
D906	8-719-987-63	DIODE	1N4148M			
D907	8-719-987-63	DIODE	1N4148M			
D908	8-719-987-63	DIODE	1N4148M			
		< IC >				
IC901	8-759-341-24	IC	uPD1724GP-697-GA7			
		< COIL >				
L901	1-410-521-11	MICRO INDUCTOR	100uH			
L902	1-410-320-11	MICRO INDUCTOR	2.2uH			
		< LIQUID CRYSTAL DISPLAY >				
NDU901	1-810-851-11	DISPLAY PANEL, LIQUID CRYSTAL				
		< TRANSISTOR >				
Q901	8-729-012-83	TRANSISTOR	2SK679A			
Q903	8-729-178-62	TRANSISTOR	2SC2786-L			
		< RESISTOR >				
R901	1-249-431-11	CARBON	15K	5%	1/4W	
R902	1-247-855-11	CARBON	10K	5%	1/4W	
R903	1-247-855-11	CARBON	10K	5%	1/4W	
R904	1-249-436-11	CARBON	39K	5%	1/4W	
R905	1-249-417-11	CARBON	1K	5%	1/4W	
R906	1-247-871-11	CARBON	47K	5%	1/4W	
R907	1-247-807-11	CARBON	100	5%	1/4W	
R908	1-247-825-11	CARBON	560	5%	1/4W	
R909	1-247-843-11	CARBON	3.3K	5%	1/4W	
R910	1-247-887-00	CARBON	220K	5%	1/4W	
R911	1-247-887-00	CARBON	220K	5%	1/4W	
R912	1-247-887-00	CARBON	220K	5%	1/4W	
R913	1-247-887-00	CARBON	220K	5%	1/4W	
R914	1-247-807-11	CARBON	100	5%	1/4W	F
R915	1-249-417-11	CARBON	1K	5%	1/4W	F
R916	1-247-807-11	CARBON	100	5%	1/4W	F
R917	1-247-879-11	CARBON	100K	5%	1/4W	
R918	1-247-807-11	CARBON	100	5%	1/4W	F
R921	1-247-871-00	CARBON	47K	5%	1/4W	
R922	1-247-871-00	CARBON	47K	5%	1/4W	

Ref. No.	Part No.	Description				Remark
		< SWITCH >				
S901	1-554-303-21	SWITCH, KEYBOARD (TUNING +)				
S902	1-554-303-21	SWITCH, KEYBOARD (TUNING -)				
S903	1-554-303-21	SWITCH, KEYBOARD (ENTER)				
S904	1-554-303-21	SWITCH, KEYBOARD (PRESET -)				
S905	1-554-303-21	SWITCH, KEYBOARD (PRESET +)				
		< VIBRATOR >				
X901	1-760-130-11	VIBRATOR, CRYSTAL (75kHz)				
**********						
*	1-655-557-11	POWER BOARD				
		**********				
	1-533-217-31	HOLDER, FUSE				
		< CAPACITOR >				
C801	1-101-005-00	CERAMIC	22000PF		50V	
C802	1-101-005-00	CERAMIC	22000PF		50V	
C803	1-101-005-00	CERAMIC	22000PF		50V	
C804	1-101-005-00	CERAMIC	22000PF		50V	
		< CONNECTOR >				
* CNJ1	1-563-470-11	HOUSING, CONNECTOR 2P				
⚠CNJ801	1-526-838-11	INLET, AC 2P (AC IN ~)				
		< DIODE >				
D801	8-719-200-02	DIODE	10E2			
D802	8-719-200-02	DIODE	10E2			
D803	8-719-200-02	DIODE	10E2			
D804	8-719-200-02	DIODE	10E2			
		< FUSE >				
⚠F801	1-532-285-00	FUSE T1.25A/250V				
		< TRANSFORMER >				
⚠T801	1-450-492-11	TRANSFORMER, POWER				
**********						
*	A-3305-065-A	TUNER BOARD, COMPLETE (B31)				
		**********				
*	A-3305-069-A	TUNER BOARD, COMPLETE (B31L:AEP)				
		**********				
*	A-3305-230-A	TUNER BOARD, COMPLETE (B31L:EE)				
		**********				
		< ANTENNA >				
ANT2	1-501-769-11	ANTENNA, FERRITE-ROD (B31)				

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description			Remark
ANT2	1-501-772-11	ANTENNA, FERRITE-ROD (L) (B31L)			
		< CAPACITOR >			
C1	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C2	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C3	1-162-199-31	CERAMIC	10PF	10% 50V	
C4	1-162-207-31	CERAMIC	22PF	5% 50V	
C5	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C6	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C7	1-124-907-11	ELECT	10uF	20% 50V	
C8	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C9	1-162-191-31	CERAMIC	2.2PF	10% 50V	
C10	1-162-191-31	CERAMIC	2.2PF	10% 50V	
C11	1-161-055-11	CERAMIC	0.022uF	10% 50V	(B31L)
C11	1-162-849-11	CERAMIC	0.068uF	10% 16V	(B31)
C12	1-104-732-11	CERAMIC	390PF	5% 100V	(B31)
C12	1-136-355-11	CERAMIC	330PF	5% 100V	(B31L)
C13	1-137-505-11	CERAMIC	220PF	5% 100V	(B31L)
C13	1-162-195-31	CERAMIC	4.7PF	5% 50V	(B31)
C14	1-162-193-31	CERAMIC	3.3PF	10% 50V	(B31)
C14	1-162-213-31	CERAMIC	39PF	5% 50V	(B31L)
C15	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C16	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C17	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C19	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C20	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C21	1-126-963-11	ELECT	4.7uF	20% 50V	
C22	1-124-903-11	ELECT	1uF	20% 50V	
C23	1-104-664-11	ELECT	47uF	20% 16V	
C24	1-104-664-11	ELECT	47uF	20% 16V	
C25	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C26	1-161-050-00	CERAMIC	0.0082uF	10% 50V	
C27	1-124-902-00	ELECT	0.47uF	20% 50V	
C28	1-161-050-00	CERAMIC	0.0082uF	10% 50V	
C29	1-124-902-00	ELECT	0.47uF	20% 50V	
C30	1-124-903-11	ELECT	1uF	20% 50V	
C31	1-124-902-00	ELECT	0.47uF	20% 50V	
C32	1-126-963-11	ELECT	4.7uF	20% 50V	
C33	1-124-925-11	ELECT	2.2uF	20% 100V	
C34	1-162-203-31	CERAMIC	15PF	5% 50V	
C35	1-124-443-00	ELECT	100uF	20% 10V	
C36	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C37	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C38	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C39	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C40	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C41	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C42	1-124-443-00	ELECT	100uF	20% 10V	
C43	1-124-902-00	ELECT	0.47uF	20% 50V	
C44	1-162-306-11	CERAMIC	0.01uF	30% 16V	
C45	1-162-294-31	CERAMIC	0.001uF	10% 50V	
C46	1-162-306-11	CERAMIC	0.01uF	30% 16V	
		< FILTER >			
CF1	1-760-738-11	FILTER, CERAMIC (10.7MHz)			
CF2	1-760-738-11	FILTER, CERAMIC (10.7MHz)			
CF3	1-577-072-21	FILTER, CERAMIC (10.7MHz)			
		< CONNECTOR >			
* CN1	1-580-161-11	PIN, CONNECTOR (PC BOARD) 9P			
* CN2	1-580-155-11	PIN, CONNECTOR (PC BOARD) 3P			
* CN3	1-580-160-11	PIN, CONNECTOR (PC BOARD) 8P			
		< TRIMMER >			
CT1	1-141-439-21	CAP, VAR FILM TRIMMER (B31L)			
CT1	1-141-290-41	CAP, VAR FILM TRIMMER (B31)			
CT2	1-141-486-11	CAP, ADJ			
		< DIODE >			
D1	8-719-987-63	DIODE	1N4148M		
D2	8-719-987-63	DIODE	1N4148M		
D3	8-719-050-70	DIODE	KV1520NT		
D4	8-719-050-72	DIODE	KV1370NT		
D5	8-719-050-72	DIODE	KV1370NT		
D6	8-719-987-63	DIODE	1N4148M		
D7	8-719-987-63	DIODE	1N4148M		
D8	8-719-987-63	DIODE	1N4148M		
		< FILTER >			
FL1	1-236-022-11	FILTER, BAND PASS			
		< IC >			
IC1	8-752-050-20	IC	CXA1238S		
		< COIL >			
L1	1-411-301-11	COIL, FM RF			
L2	1-411-300-11	COIL, FM OSC			
L3	1-410-967-11	INDUCTOR	2.2uH		
L4	1-410-501-11	INDUCTOR	2.2uH		
		< TRANSISTOR >			
Q1	8-729-178-62	TRANSISTOR	2SC2786-L		
Q3	8-729-806-30	TRANSISTOR	2SC4048		
Q4	8-729-902-80	TRANSISTOR	DTA114YS		
Q5	8-729-806-30	TRANSISTOR	2SC4048		
Q6	8-729-806-30	TRANSISTOR	2SC4048		
Q7	8-729-806-30	TRANSISTOR	2SC4048		
Q8	8-729-106-07	TRANSISTOR	2SK514-H		
Q9	8-729-806-12	TRANSISTOR	2SA1564		

TUNER

Ref. No.	Part No.	Description				Remark
		< RESISTOR >				
R1	1-247-871-11	CARBON	47K	5%	1/4W	
R2	1-249-423-11	CARBON	3.3K	5%	1/4W	
R3	1-249-431-11	CARBON	15K	5%	1/4W	
R4	1-247-887-00	CARBON	220K	5%	1/4W	
R5	1-247-807-11	CARBON	100	5%	1/4W	
R6	1-247-871-11	CARBON	47K	5%	1/4W	
R7	1-249-417-11	CARBON	1K	5%	1/4W	F
R8	1-249-417-11	CARBON	1K	5%	1/4W	F
R9	1-247-879-11	CARBON	100K	5%	1/4W	
R10	1-249-435-11	CARBON	33K	5%	1/4W	
R11	1-247-807-11	CARBON	100	5%	1/4W	
R12	1-249-417-11	CARBON	1K	5%	1/4W	F
R14	1-247-895-00	CARBON	470K	5%	1/4W	
R15	1-247-839-11	CARBON	2.2K	5%	1/4W	
R16	1-247-807-11	CARBON	100	5%	1/4W	
R17	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R18	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R19	1-247-887-00	CARBON	220K	5%	1/4W	
R20	1-247-839-11	CARBON	2.2K	5%	1/4W	
R21	1-247-887-00	CARBON	220K	5%	1/4W	
R22	1-247-855-11	CARBON	10K	5%	1/4W	
R24	1-247-895-00	CARBON	470K	5%	1/4W	
R25	1-249-417-11	CARBON	1K	5%	1/4W	F
R26	1-249-435-11	CARBON	33K	5%	1/4W	
R27	1-249-435-11	CARBON	33K	5%	1/4W	
R28	1-247-879-11	CARBON	100K	5%	1/4W	
R30	1-247-807-11	CARBON	100	5%	1/4W	
		< VARIABLE RESISTOR >				
RV1	1-223-641-11	RES, ADJ, CARBON 22K				
		< TRANSFORMER >				
T1	1-411-304-11	COIL, MW OSC				
T2	1-409-834-11	COIL, AM IF				
T3	1-409-944-11	COIL (DET)				
		MISCELLANEOUS				
76	1-533-217-31	HOLDER, FUSE				
ANT1	1-501-378-11	ANTENNA, TELESCOPIC				
D903	8-719-038-29	DIODE SLP-181B-51 (TUNE)				
⚠F801	1-532-285-00	FUSE T1.25A/250V				
HE901	1-500-031-11	HEAD, MAGNETIC (ERASE)				
HRP901	1-500-005-11	HEAD, MAGNETIC (RECORD/PLAYBACK)				
M901	X-3366-491-1	MOTOR ASSY				
MIC301	1-542-118-11	MICROPHONE, ELECTRET CONDENSER (MIC)				
NDU901	1-810-851-11	DISPLAY PANEL, LIQUID CRYSTAL				
S601	1-572-304-11	SWITCH, LEAF (TAPE POWER)				
SP101	1-504-269-21	SPEAKER (10CM) (B31)				
SP101	1-504-727-11	SPEAKER (10CM) (B31L)				
SP201	1-504-269-21	SPEAKER (10CM) (B31)				
SP201	1-504-727-11	SPEAKER (10CM) (B31L)				
⚠T801	1-450-492-11	TRANSFORMER, POWER				
		ACCESSORIES & PACKING MATERIALS				
⚠	1-696-820-21	CORD, POWER (B31:AEP, IT/B31L)				
⚠	1-751-214-11	CORD, POWER (B31:UK)				
	3-798-775-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH) (B31:AEP, UK/B31L:AEP)				
	3-798-775-41	MANUAL, INSTRUCTION (DUTCH, SWEDISH, ITALIAN, PORTUGUESE) (B31:AEP, IT/B31L:AEP)				
	3-798-775-61	MANUAL, INSTRUCTION (POLISH, ENGLISH, GERMAN, RUSSIAN) (B31L:EE)				
*	3-917-952-01	CUSHION (L)				
*	3-917-953-01	CUSHION (R)				
*	3-923-937-01	INDIVIDUAL CARTON (B31) (B31:AEP, IT)				
*	3-923-938-01	INDIVIDUAL CARTON (B31:UK)				
*	3-923-941-01	INDIVIDUAL CARTON (B31L)				

HARDWARE LIST

#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#2	7-685-153-19	SCREW +P 3X30 TYPE2 NON-SLIT
#3	7-685-871-01	SCREW +BVTT 3X6 (S)
#4	7-621-255-25	SCREW +PTT 2X4 (S)
#5	7-682-548-09	SCREW +B 3X8
#6	7-628-254-05	SCREW +PS 2.6X5
#7	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT
#8	7-685-861-01	SCREW +BVTT 2.6X5 (S)

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

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